Stage 1 DBPR Monitoring Plan
Total Trihalomethanes (TTHM) and Haloacetic Acids (HAA5)

1a.   *Please circle the analytical method(s) that your system will use for TTHM and HAA5 sample analysis:*

TTHM	HAA5
EPA 502.2	**EPA 552.1**
EPA 524.2	**EPA 552.2**
EPA 551.1	**SM 6251B**

1b.   *Please note any sample handling or preservation instructions (e.g., ammonium chloride, protection from light, amber glass, and 50 mL bottle) for your certified laboratory:*

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1c.   *List the contact information for the certified laboratory (name, phone, and address) that will analyze your TTHM and HAA5 samples:*

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★ **2.**   *In the tables below, record the specific locations and schedule for collecting samples. Systems required to sample once per year (or less frequently) must take their sample in the month of warmest water temperature. If you take more than the required number of samples, you must take at least 25 percent of the samples at the location of maximum residence time (MRT) and the remainder at locations of at least average residence time (ART).*

Table 1: Routine Monitoring

Plant Number*	Sampling Frequency (e.g., #/quarter or #/year)	Scheduled Sample Dates (e.g., 1st week of quarter)	Sample Site Locations (with reference ID from map)
			Maximum residence time
			Maximum residence time
			Maximum residence time
			Maximum residence time

* With state approval, multiple wells drawing water from the same aquifer may be considered one treatment plant.

Notes:

Table 2: Reduced Monitoring**

Plant Number*	Sampling Frequency (e.g., #/year)	Scheduled Sample Dates (e.g., 1st week of quarter)	Sample Site Locations (with reference ID from map)
			Maximum residence time
			Maximum residence time
			Maximum residence time
			Maximum residence time

* With state approval, multiple wells drawing water from the same aquifer may be considered one treatment plant.
** May not be required by your state unless system is on reduced monitoring, but may be helpful to complete ahead of time.

Notes:

Table 3: Increased Monitoring***

Plant Number*	Sampling Frequency (e.g., #/quarter)	Scheduled Sample Dates (e.g., 1ˢᵗ week of quarter)	Sample Site Locations (with reference ID from map)
			Maximum residence time
			Maximum residence time
			Maximum residence time
			Maximum residence time

* With state approval, multiple wells drawing water from the same aquifer may be considered one treatment plant.
*** May not be required by your state unless system is on increased monitoring, but may be helpful to complete ahead of time.

★ 3.   *Calculating Compliance*

    In the box provided below, describe how you will calculate compliance. Example compliance determination formulas are included below for your convenience.

Compliance Calculation (enter your method for determining compliance in the space below)

Example Calculations:
<u>**Quarterly Monitoring**</u>

Compliance is based on a running annual average of TTHM or HAA5 quarterly results (or averages) computed quarterly. If you sample more than once per quarter, you can use the following formula to calculate your quarterly average. Until you have been on quarterly monitoring for one year, you can assume zeros for future quarters:

Quarterly Average
$Q_1 = \dfrac{S_1 + S_2 + S_3 + S_4}{\text{Number of Samples per Quarter}}$

Your system is in compliance if:

Quarterly Monitoring	
TTHM	$RAA = \dfrac{Q_1 + Q_2 + Q_3 + Q_4}{4} \leq 0.080 \text{ mg/L}$
HAA5	$RAA = \dfrac{Q_1 + Q_2 + Q_3 + Q_4}{4} \leq 0.060 \text{ mg/L}$

Use the monitoring worksheet included at the end to track your monitoring results.

<u>**Annual Monitoring**</u>

You will need to determine compliance status using results of your TTHM and HAA5 annual samples (or average of samples), which must be taken during the month of warmest water temperature. This determination is identical for systems sampling less frequently than annually. If an annual sample is greater than the MCL and triggers quarterly monitoring, that sample becomes the first quarterly sample.

You can use the following monitoring worksheets to record samples and calculate compliance with the MCL.